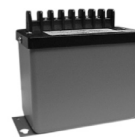


DESCRIPTION

The CTA Signal Conditioner provides the excitation current (instrument power) that the CTL Hall-effect sensor requires, as well as amplifying the low-level (mV) signal into a more typical signal. The CTA is calibrated to the output of the specific CTL selected for the application. Each CTA model has a specific input range (mV) which corresponds to the output of the CTL.



The CTA family has two different types; Direct and RMS. Direct models provide an isolated output that is directly proportional to the amplitude and frequency of the input signal. If the input signal is ac, then the output signal is ac. If the input signal is dc, then the output signal is dc. The RMS output models provide an output which is directly proportional to the RMS of the input signal. The output is dc regardless of whether the input is ac or dc. Each type has four output options: 1mA dc, 4-20mA ac, 10V dc, or 5V dc. DC instrument power options are available from 12 to 48V dc.

For CTA model Selection, refer to the chart on the following page.

CTA SPECIFICATIONS

INPUT (to CTA)

Standard	0-50mV
Option "R"	0-35mV
Option "H"	0-75mV
Option "P"	0-100mV
Frequency Range (of CTA Signal Conditioner only) ...	dc-5000Hz

OUTPUT

Field-adjustable Gain	25%
Loading	
Models with 1mA output	0-10kΩ
Models with 10V or 5V output	2kΩ min.
Models with 4-20mA output	0-500
Response time (to 90%)	
Direct models	40μs
RMS models	200ms

INSTRUMENT POWER

Standard	115Vac, 50-400Hz, 2VA
Option "-22"	230Vac ±15%, 50/60Hz
Option "-12"	9-18Vdc
Option "-24"	18-36Vdc
Option "-48"	36-60Vdc

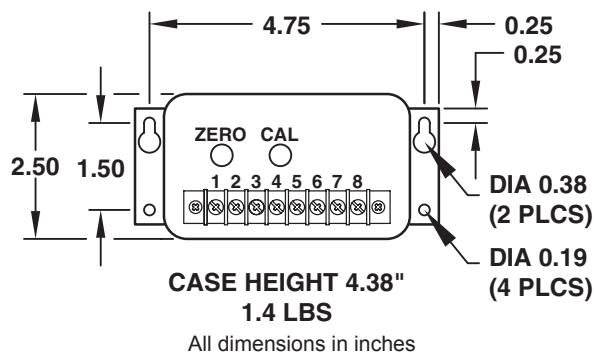
ACCURACY

Linearity	± 0.1% F.S.
Output Ripple	Less than 0.25% F.S.

TEMPERATURE

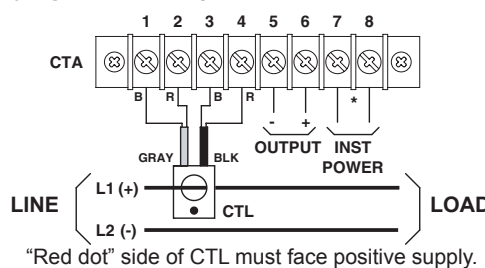
Operating Range	0°C to +70°C
Effect	±0.005%/°C

CTA CASE DIMENSIONS



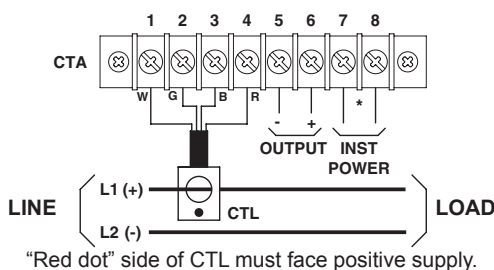
CONNECTION DIAGRAMS

Caution: Connect CTL to CTA terminals 1, 2, 3, & 4 before applying instrument power to CTA terminals 7 & 8.



CTL SENSOR SIZES A, C, D (solid core)

CABLE	WIRE	SIGNAL
GRAY	BLACK	OUTPUT (-)
GRAY	RED	OUTPUT (+)
SHIELD	SHIELD	SHIELD
BLACK	BLACK	EXCITATION (-)
BLACK	RED	EXCITATION (+)



CTL SENSOR SIZES E, EE, F, G, H, HH

PIN	COLOR	SIGNAL
A	WHITE	OUTPUT (-)
B	GREEN	OUTPUT (+)
C	BLACK	EXCITATION (-)
D	RED	EXCITATION (+)
E	SHIELD	SHIELD

CTL SENSOR SIZES D (split core), Z, & ZZ

PIN	COLOR	SIGNAL
1	WHITE	OUTPUT (-)
2	GREEN	OUTPUT (+)
3	SHIELD	SHIELD
6	BLACK	EXCITATION (-)
8	RED	EXCITATION (+)

The following table shows appropriate CTL/CTA combinations with available CTA output options. When ordered together, CTL/CTA combinations are factory calibrated as a set.

To select the proper CTA model, locate the preferred CTL model and move to the right, selecting either direct or RMS style and the desired output signal.

ORDERING INFORMATION

Example: 0-2000Adc CTL Input through 2" Window, 4-20mAdc CTA Output (direct, not RMS), ±0.5% Accuracy and Linearity, Split-Core

CTL-202S/2000 and CTA212P

CTA MODEL SELECTION

INPUT CURRENT RANGE (THROUGH CTL WINDOW)	MODEL CTL CURRENT TRANSDUCER	ACC. (% of F.S.)	WINDOW DIAMETER (INCHES)	SENS. SIZE	DIRECT MODELS - AC/DC OUTPUT PROPORTIONAL TO AC/DC INPUT				RMS MODELS - DC OUTPUT PROPORTIONAL TO RMS OR DC INPUT			
					STANDARD OUTPUT MODEL CTA-				STANDARD OUTPUT MODEL CTA-			
					±5V	±10V	4-20mA	±1mA	+5Vdc	+10Vdc	4-20mA	+1mAdc
0-35A	CTL-51/35	±0.5	3/8	A	201RX5	201R	212R	201RA	213RX5	213R	215R	214R
0-50A	CTL-51/50	±0.5	3/8	A	201X5	201	212	201A	213X5	213	215	214
0-50A	CTL-101/50	±0.5	3/4	C	201X5	201	212	201A	213X5	213	215	214
0-75A	CTL-101/75	±0.5	3/4	C	201HX5	201H	212H	201HA	213HX5	213H	215H	214H
0-100A	CTL-101/100	±0.5	3/4	C	201PX5	201P	212P	201PA	213PX5	213P	215P	214P
0-150A	CTL-201/150	±0.5	1 1/8	D	201HX5	201H	212H	201HA	213HX5	213H	215H	214H
0-200A	CTL-201/200	±0.5	1 1/8	D	201PX5	201P	212P	201PA	213PX5	213P	215P	214P
0-300A	CTL-401/300	±0.5	1 1/8	D	201HX5	201H	212H	201HA	213HX5	213H	215H	214H
0-400A	CTL-401/400	±0.5	1 1/8	D	201PX5	201P	212P	201PA	213PX5	213P	215P	214P
0-500A	CTL-601/500	±0.5	2 or 2 1/4	E/F	201X5	201	212	201A	213X5	213	215	214
0-500A	CTL-202H/500	±0.5	4 1/2 x 1 1/4	Z	201X5	201	212	201A	213X5	213	215	214
0-600A	CTL-601/600	±0.5	2 or 2 1/4	E/F	201X5	201	212	201A	213X5	213	215	214
0-800A	CTL-202/800	±0.5	2 or 2 1/4	E/F	201X5	201	212	201A	213X5	213	215	214
0-1000A	CTL-202/1000	±0.5	2 or 2 1/4	E/F	201X5	201	212	201A	213X5	213	215	214
0-1000A	CTL-202H/1000	±0.5	4 1/2 x 1 1/4	Z	201PX5	201P	212P	201PA	213PX5	213P	215P	214P
0-1000A	CTL-202EES/1000	±0.5	4 1/4	EE	201PX5	201P	212P	201PA	213PX5	213P	215P	214P
0-1000A	CTL-202ZZS/1000	±1	4 1/2 x 2 2/5	ZZ	201PX5	201P	212P	201PA	213PX5	213P	215P	214P
0-1500A	CTL-202/1500	±0.5	2 or 2 1/4	E/F	201HX5	201H	212H	201HA	213HX5	213H	215H	214H
0-1500A	CTL-202EES/1500	±0.5	4 1/4	EE	201KX5	201K	212K	201KA	213KX5	213K	215K	214K
0-2000A	CTL-202/2000	±0.5	2 or 2 1/4	E/F	201PX5	201P	212P	201PA	213PX5	213P	215P	214P
0-2000A	CTL-202H/2000	±1	4 1/2 x 1 1/4	Z	201LX5	201L	212L	201LA	NA	NA	NA	NA
0-2000A	CTL-502H/2000	±1	4 1/2 x 1 1/4	Z	NA	NA	NA	NA	213X5	213	215	214
0-2000A	CTL-202ZZS/2000	±1	4 1/2 x 2 2/5	ZZ	201LX5	201L	212L	201LA	NA	NA	NA	NA
0-2000A	CTL-202EES/2000	±0.5	4 1/4	EE	201LX5	201L	212L	201LA	213LX5	213L	215L	214L
0-2500A	CTL-502H/2500	±1	4 1/2 x 1 1/4	Z	201HX5	201H	212H	201HA	213HX5	213H	215H	214H
0-2500A	CTL-302EES/2500	±0.5	4 1/4	EE	201HX5	201H	212H	201HA	NA	NA	NA	NA
0-2500A	CTL-502/2500	±0.5	3 x 6 1/2	G	201HX5	201H	212H	201HA	213HX5	213H	215H	214H
0-3000A	CTL-502H/3000	±1	4 1/2 x 1 1/4	Z	201PX5	201P	212P	201PA	213PX5	213P	215P	214P
0-3000A	CTL-302ZZS/3000	±1	4 1/2 x 2 2/5	ZZ	201KX5	201K	212K	201KA	NA	NA	NA	NA
0-3000A	CTL-302EES/3000	±0.5	4 1/4	EE	201PX5	201P	212P	201PA	NA	NA	NA	NA
0-3000A	CTL-502/3000	±1	3 x 6 1/2	G	201PX5	201P	212P	201PA	213PX5	213P	215P	214P
0-4000A	CTL-502H/4000	±1	4 1/2 x 1 1/4	Z	201NX5	201N	212N	201NA	NA	NA	NA	NA
0-4000A	CTL-502/4000	±1	3 x 6 1/2	G	201NX5	201N	212N	201NA	NA	NA	NA	NA
0-5000A	CTL-502H/5000	±1	4 1/2 x 1 1/4	Z	201KX5	201K	212K	201KA	NA	NA	NA	NA
0-5000A	CTL-502/5000	±1	3 x 6 1/2	G	201KX5	201K	212K	201KA	NA	NA	NA	NA
0-5000A	CTL-103/5000	±1	5 1/2 x 8	H	201X5	201	212	201A	213X5	213	215	214
0-6000A	CTL-103/6000	±1	5 1/2 x 8	H	201X5	201	212	201A	213X5	213	215	214
0-7000A	CTL-103/7000	±1	5 1/2 x 8	H	201HX5	201H	212H	201HA	213HX5	213H	215H	214H
0-8000A	CTL-103/8000	±1	5 1/2 x 8	H	201HX5	201H	212H	201HA	213HX5	213H	215H	214H
0-9000A	CTL-103/9000	±1	5 1/2 x 8	H	201PX5	201P	212P	201PA	NA	NA	NA	NA
0-10000A	CTL-103/10000	±1	5 1/2 x 8	H	201PX5	201P	212P	201PA	NA	NA	NA	NA
0-12000A	CTL-203/12000	±2	5 1/2 x 8	H	201X5	201	212	201A	213X5	213	215	214
0-15000A	CTL-203/15000	±2	5 1/2 x 8	H	201HX5	201H	212H	201HA	NA	NA	NA	NA
0-18000A	CTL-203/18000	±2	5 1/2 x 8	H	201PX5	201P	212P	201PA	NA	NA	NA	NA
0-20000A	CTL-203/20000	±2	5 1/2 x 8	H	201PX5	201P	212P	201PA	NA	NA	NA	NA
0-25000A	CTL-303/25000	±2	13 x 13	HH	201HX5	201H	212H	201HA	NA	NA	NA	NA
0-30000A	CTL-303/30000	±2	13 x 13	HH	201PX5	201P	212P	201PA	NA	NA	NA	NA
0-35000A	CTL-403/35000	±2	13 x 13	HH	201HX5	201H	212H	201HA	NA	NA	NA	NA
0-40000A	CTL-403/40000	±2	13 x 13	HH	201PX5	201P	212P	201PA	NA	NA	NA	NA